

REQUEST FOR RECONSIDERATION

Claims 1-3, 5-16 and 18-21 remain active in this application.

The claimed invention is directed to a hair cleansing composition comprising an alkyl ether sulfate surfactant comprising 30-45 wt.% of the sulfate of formula I wherein  $n=0$ , 18-27 wt.% of the sulfate wherein  $n=1$ , and 10-20 wt.% of the sulfate wherein  $n=2$ , the balance wherein  $n$  is 3 or greater and the sum of sulfates wherein  $n=0-2$  is 70 wt.% or greater and at least one silicone selected the group consisting of dimethylpolysiloxanes and amino-modified silicone. Applicants have discovered that such a distribution of alkyl ether sulfate surfactants and silicone provides for good foaming properties in a hair cleansing composition. Such a hair cleansing composition is nowhere disclosed or suggested in the cited references of record.

Applicants wish to thank examiner Channavajjala for the helpful and courteous discussion held with their U.S. representative on March 17, 2010. At that time, applicants' U.S. representative argued the criticality of combining the claimed sulfated surfactant with a silicone compound in terms of foaming speed. The examiner expressed her perception of the limited showing as to an enhancement in foaming speed for a genus of amino-modified silicones. The following is intended to expand upon the discussion with the examiner.

The rejections of claims 1-3, 5-16 and 18-21 under 35 U.S.C. §103(a) over various combinations of Flick and in further view of Bartz 5, 417,776 as evidenced by the translation of the Brief submitted by European Patent Office by Cognis GmbH and Takamura et al U.S. 5,035,832 are respectfully traversed.

Flick discloses Standapol ES-1, a surfactant based on sodium laureth sulfate, asserted to have a sulfate distribution as claimed. The failure to disclose the

combination with a silicone as claimed is recognized on page 4, paragraph 8 of the official action but cites to Bartz for disclosing a silicone hair conditioning agent with an anionic surfactant.

In addition, Takamura et al. has been cited for a disclosure that the foaming properties of foam density and feel of **an alkylsaccharide** surfactant composition can be enhanced by addition of a silicone derivative (column 1, lines 53-61)

The official action reasons that it would have been obvious to include a silicone as disclosed in Bartz in the surfactant of Flick and that Takamura et al. would have provided an expectation of a foaming enhancement.

Notwithstanding that Takamura et al. describes the effect of a silicone on the foaming properties of **a non-ionic surfactant** and that the art recognizes foaming performance differences between anionic and non-ionic surfactants, applicants respectfully submit that there is no suggestion in the cited references of an enhancement in foaming **speed** and hair luster and hair manageability by combining a silicone with an ethoxylated sulfated anionic surfactant as claimed.

As evidence of an enhancement in foaming speed resulting from the claimed combination demonstrated for a genus of amino-modified silicones, applicants have conducted additional experiments, and the performance results are as follows: A portion of the data from the Kaharu declaration submitted October 15, 2009 is also included.

Component	Add Ex 2 *	Ex 1	Ex 2	Ex 3	Add Comp Ex 2 *	Comp Ex 1	Comp Ex 2	Comp Ex 3	Add Comp Ex 3 *
Sulfate 1	12	12	12	12					12
Comparative Sulfate 3					12	12	12	12	
JP8500:product of Dow Corning Toray Co.,Ltd. INCI: Bis(C13-15 Alkoxy)PG Amodimethicone	0.5				0.5				-
SM8704C:product of Dow Corning Toray Co.,Ltd. INCI: Amodimethicone		0.5				0.5			
SS-3588:product of Dow Corning Toray Co.,Ltd. INCI: Bis-Isobutyl PEG-15/Amodimethicone Copolymer			0.5				0.5		
S I L S T Y L E 401:product of Dow Corning Toray Co.,Ltd. INCI: Bis- Butyloxymodimethicone/PEG-60 Copolymer				0.5				0.5	
Miristyl alcohol (	1	1	1	1	1	1	1	1	1
Ethylene glycol distearate	3	3	3	3	3	3	3	3	3
Cationic hydroxyethyl cellulose)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Cationic guar gum	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Malic acid	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Purified water	Balance	Balance	Balance	Balance	Balance	Balance	Balance	Balance	Balance
pH (when dilluted to 20 times the weight with water 25°C.)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Foaming speed	20	20	20	18	10	12	14	8	15
Lubricity of foam	20	19	22	20	13	12	13	15	13
Luster and manageability	20	20	20	19	15	14	14	16	10

\*From Kaharu declaration of October 15, 2009

Evaluation: Five experts evaluated each composition on a scale of 1-5. Each composition was evaluated by the sum of their scores.

Foaming speed: 5 very fast foaming, 4 fast foaming, 3 a little fast foaming, 2 a little late foaming, 1 late foaming.

Lubricity of foam: 5 very lubricious, 4 lubricious, 3 somewhat lubricious, 2 not so lubricious, 1 not lubricious.

Luster and manageability: 5 very good, 4 good, 3 somewhat good, 2, not so good, 1 not good.

Two types of amino-modified silicones are commonly used in aqueous hair cleansing compositions A) amino modified silicone and B) linear aminopolyether-modified silicone. JP8500:product and SM8704C are examples of Type A amino-modified silicones. SS-3588 and Silstyle 401 are examples of Type B linear aminopolyether modified silicones.

#### Foaming Speed

The data demonstrates an enhanced foaming speed resulting from the combination of ethoxylated sulfate and four different amino-modified silicones (evaluation of 18-20) as compared with the same amino-modified silicones with an ethoxylated sulfate outside of the claimed distribution (evaluation of 8-15). Such an enhancement in foaming speed is simply not suggested from the combination as claimed.

#### Luster and Manageability of Hair

The data demonstrates an enhanced luster and manageability of hair resulting from the combination of ethoxylated sulfate and four different amino-modified silicones (evaluation of 19-20) as compared with the same amino-modified silicones with an ethoxylated sulfate outside of the claimed distribution (evaluation of 10-16). Such an enhancement in luster and manageability of hair is simply not suggested from the combination as claimed.

Applicants note that hair luster is a **visual evaluation** of hair which is dried naturally after shampooing. Manageability is an evaluation of the cohesiveness of a hair bundle. When the manageability is low, the hair becomes unruly.

In contrast, Takamura et al. describes that a silicone gives “a superior tensity to the hair and a superb light feeling to the skin” column 5, lines 63-65). Tensity is **a dry hair feeling evaluation** and is not suggestive of any of visual or cohesive properties. Takamura et al. describes that hair is washed, dried and subjected to sensory evaluation of touch (column 6, lines 65-67). The skin feeling was measured by washing skin, drying and evaluating the skin feeling (column 7, lines 1-2). Thus, in spite of a suggestion of an enhancement in foaming properties to a non-ionic surfactant, enhancements to luster and manageability are simply not suggested by Takamura et al.

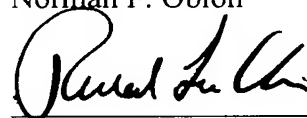
Thus, the additional evidence, in conjunction with the evidence presented in the Kaharu declaration of October 15, 2009 demonstrates and enhancement in foaming speed from the combination of ethoxylated sulfated surfactant when combined with a dimethylpolysiloxane and/or an amino-modified silicone.

In view of applicants’ demonstration of enhancements in foaming speed and luster and manageability the claimed invention is not rendered obvious by the cited references and withdrawal of the rejections under 35 U.S.C. §103(a) is respectfully requested.

Applicants submit this application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

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